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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,119

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Zsolt Bor

2000-0062-03

3952

21773

7590

05/19/2006

CYMER INC
LEGAL DEPARTMENT
17075 Thornmint Court
SAN DIEGO, CA 92127-2413

EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,119

Applicant(s)

BOR, ZSOLT

Examiner

Dung (Michael) T. Nguyen

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2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8-11 and 14-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 8-11, 14, 16-23 and 30-41 is/are rejected.
- 7) ☒ Claim(s) 3, 15 and 24-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/17/04&10/5/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 recites the limitation "said pivoting mirror" in first line. There is insufficient antecedent basis for this limitation in the claim.

Claims 14-15 recite the limitation "said angle" in first line. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "said tuning means" in second line. There is insufficient antecedent basis for this limitation in the claim.

Claims 19-20 recite the limitation "said feedback control" in first line. There is insufficient antecedent basis for this limitation in the claim.

Claims 30-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation of "a bandwidth stabilizer" is not disclosed in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2, 4, 8-11, 14, and 16-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Admitted Prior Art (APA).

With respect to claims 1-2, Fig. 1-3 disclose an electric discharge narrow band gas laser with minimized wavelength variations caused by fluctuations in laser gas density resulting in laser beam directional changes comprising: A) a laser chamber (6), B) an elongated electrode structure enclosed within said chamber comprising an elongated anode and an elongated cathode separated by a distance defining a discharge region (it is inherent that a gas laser has the electrode structure), said discharge region defining a long dimension in a beam direction, C) a laser gas contained in said chamber, D) a fan (38) for circulating said laser gas within said chamber and through said discharge region, E) an output coupler (4) and a line narrowing module (2) defining a resonant cavity and laser beam direction, and F) two chamber windows (7A-7B) having surfaces oriented substantially parallel to the surfaces of each other and at an angle between 40 and 70 degrees (Brewster's angle about 57 degrees on page 1, lines 13-14) with said beam direction, and; G) a fast beam deflection monitoring means (14) to monitor deflection of said test laser beam.

With respect to claims 8 and 17, Fig. 2 shows a pulse energy control means (18).

With respect to claims 9, 16, and 18, Fig. 2 shows a pivoting mirror (10) includes means for pivoting (20).

With respect to claims 19-20, Fig.2 shows a feedback control means (16).

With respect to claims 4 and 10-11, Fig.1-3 disclose a narrow band electric discharge gas laser with minimized wavelength variations caused by fluctuations in laser gas density resulting in laser beam directional changes comprising: A) a laser chamber (6), B) an elongated electrode structure enclosed within said chamber comprising an elongated anode and an elongated cathode separated by a distance defining a discharge region in which a discharge laser beam is amplified, said discharge region defining a long dimension in a beam direction, C) a laser gas contained in said chamber, D) a fan (38) for circulating said laser gas within said chamber and through said discharge region, E) an output coupler (4), F) a grating based line narrowing module comprising a grating (12) and a tuning means (10) to control direction of illumination of light from said chamber on said grating, said direction of illumination defining an illumination direction, G) a fast beam deflection monitoring means (14) to monitor deflection of said laser beam; and H) a feedback control means (16) for controlling said tuning means based on signals from said beam deflection monitoring means.

With respect to claim 14, page 1, line 13-14 discloses an angle is equal to Brewster's angle for the laser gas and window materials (7A-7B).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-23 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Knowles et al. (5991324).

With respect to claims 21-23 and 30-32, APA disclose all limitations of the claims 1 and 4 except for the means (bandwidth stabilizer) for reducing the impact of discharge produced pressure waves.

Knowles et al. teach the means (acoustic baffles 60 and 62 in Fig.3A) for reducing the impact of discharge produced pressure waves (col.5, lines 50-67 and col.6, lines 1-11).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide APA what is taught by Knowles et al. to order to reduce pulse quality distortion caused by acoustic shock (pressure) waves in the gas chamber (col.6, lines 9-11).

Allowable Subject Matter

Claims 3, 15, and 24-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Michael Dung Nguyen

Alvin D.
for
SPE Min Sun Harvey